

SDMS US EPA REGION V -1

**SOME IMAGES WITHIN THIS
DOCUMENT MAY BE ILLEGIBLE
DUE TO BAD SOURCE
DOCUMENTS.**

TECHNICAL REPORT
FOR

147702

BLACK RIVER SAMPLING
ADJACENT TO
CHEMICAL RECOVERY SYSTEMS, INC.
SITE

R05-8512-06
APRIL 24, 1986
OHD057001810

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ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415

International Specialists in the Environment

M E M O R A N D U M

DATE: April 22, 1986
TO: Erin Moran, RPM, USEPA, Region V
FROM: Pat Petrella, Ecology and Environment, Inc., FIT
SUBJECT: Ohio/R05-8512-06
Elyria/Chemical Recovery Systems
OHD057001810

INTRODUCTION

The purpose of this sampling activity was to determine if the Chemical Recovery System, Inc. (CRS) site is presently contributing to contamination of the Black River and to verify the sampling data obtained by the CRS contractor, CLOW, Inc.

A Technical Directive Document (TDD) for requesting FIT services was issued December 17, 1985 for the following scope of work:

- o Collect water samples from the Black River upstream and downstream of the CRS site as specified by the RPM.
- o Collect a water sample from a designated site outfall to the River, if possible, as specified by the RPM.
- o Submit water samples to CLP for analysis.
- o Submit a technical memorandum of field activities.

SITE BACKGROUND AND DESCRIPTION

The CRS site is approximately 4 acres and is located at 124 Locust Street, Elyria, Ohio in Lorain County. The downtown area of Elyria is approximately 2.5 blocks from the site. To the North and

East, the site is bordered by Harshaw Chemical Company. It is fenced on the North, South and East sides while bordered by the east branch of the Black River and a 25' high, densely vegetated steep slope on the west. Presently, 1 building and foundations for 2 others structures are onsite. Refer to Section 2 for a location map and site sketch.

The site property is presently owned by Mr. and Mrs. Russell Obitts. Mr. Obitts operated a Chemical Recovery Facility onsite before leasing the property to CRS in 1974. CRS accepted drummed and bulk chemical wastes for reclamation using a distillation process. As a result of citizen complaints and site investigations by the local Health Department and Fire Inspector, severe contamination onsite and in the River was identified. Fire code violations were also found. The Fire Marshall declared the site to be a fire hazard and ordered the violations corrected. Follow-up inspections by the U.S. EPA revealed approximately 4000 55-gallon drums and 53,500 gallon of bulk chemical stored improperly onsite. Sample analyses of spilled materials indicated the presence of various hazardous substances including PCB, trichloroethene, metlyl elthyl Ketone (MEK), toluene and xylene.

Because the site posed a substantial threat to the local population and the environment, U.S. EPA initiated legal action. On October 7, 1980 a civil action was brought on behalf of the U.S. EPA in the U.S. District Court, Northern District of Ohio, against CRS to abate an imminent and substantial endangerment to public health and the environment.

The law suit also sought restitution of money spent for investigation of the site. Chemical Recovery responded by removing the drums, tanks, and process equipment from the site and transporting hazardous waste to U.S. EPA approved disposal sites. In 1981, U.S.

EPA approved disposal sites. In 1981, U.S. EPA requested FIT (Ecology and Environment, Inc.) to perform a hydrogeologic study at the site. Sample analyses revealed a release of contaminants to groundwater and extensive soil and subsurface contamination. As the result of this study and information obtained from other site visits by the U.S. EPA a consent order was issued July 12, 1983. Refer to Section 5 for a copy of this document.

In addition to the remedial work, the consent order required CRS to sample the Black River periodically to monitor the site's impact on the river. The Company contracted CLOW, Inc. to do this surveillance work. To verify the quality of the sampling performed in November, 1985 by CLOW, Inc. and assess river water quality, U.S. EPA requested FIT to sample the River.

FIELD ACTIVITIES

PRE-SAMPLING ACTIVITIES

Upon arrival on February 5, 1986, the entrance to the site was locked. After determining that the appropriate access route to the river for sampling was from onsite, FIT contacted Mrs. Obitts to gain access. After clearing the site, FIT proceeded to locate the sampling points along the river. These locations are shown on Figure 2 in Section 2. Mrs. Obitts left the site requesting FIT lock the gate when sampling was complete

SAMPLING ACTIVITIES

The samples S1, S2, and S3 were collected from three distinct sampling points along the river upstream and downstream of CRS and at an outfall discharge from CRS (See Figure 2). All sample locations were on the east side of the east branch of the Black River. Sample

S1 is the downstream sample, S2 is the outfall sample, and S3, the upstream sample. Sample S1 was collected approximately 12 feet upstream of the site's southern fence line because there was no place to stand along the river's edge, further downstream, to collect the sample. Sample S2, the outfall sample, was collected downstream of a point suspected of being the outfall location sampled by CLOW, Inc. in November, 1985. This alternate location was chosen since the outfall pipe could not be found. This location was chosen based on the following information:

- o Approximately 20' upstream of the sampling point was a cove recessed into the river bank that indicated where an outfall may have been active at one time. There was no flow from this location into the river.
- o Broken drain tile was noted in the cove area. A report by Ecology and Environment, Inc. (E&E) dated April 26, 1982 indicates that the outfall in question was the drain tile.
- o The actual distance from the north site boundary to the center of the cove was approximately that distance measured by E&E during the hydrogeologic study.

A duplicate sample was collected at location S2. A blank of distilled water was also prepared. None of the samples were filtered. The river appeared to exhibit higher flow than usual because of melting snow and rain.

Upon leaving the site at approximately 5:30 p.m., FIT locked the gate. The following day, FIT met with Mr. & Mrs. Obitts and provided a receipt for samples.

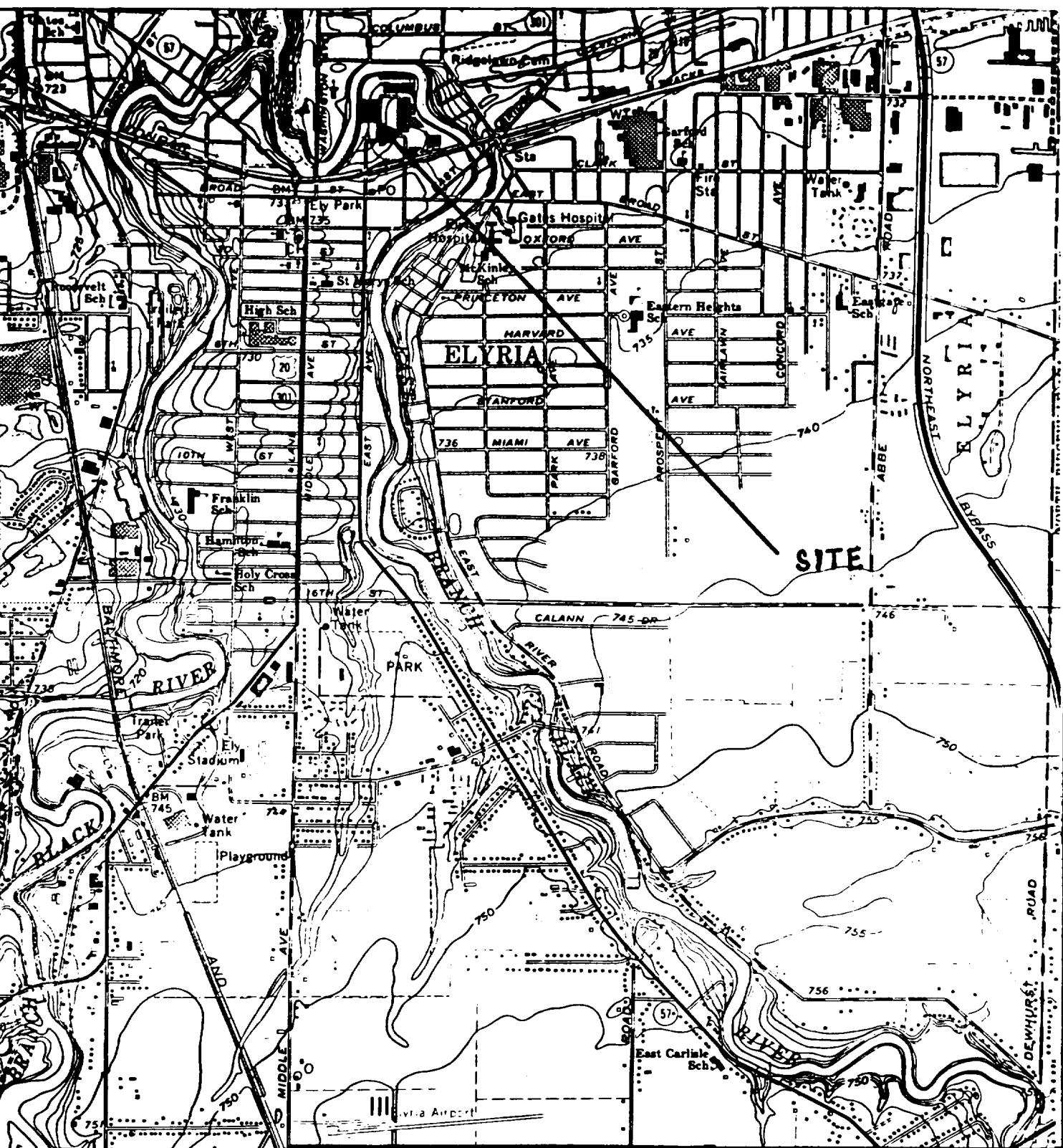
SAMPLE SHIPMENT

Samples were packaged and shipped on February 5, 1986 according to established U.S. EPA protocol to the following laboratories:

Chemtech Consulting Group, LTD. (Inorganics)
360 West 11th Street
New York, New York 10014
(212) 255-2100

Hazelton Laboratories (organics)
3301 Kinsman Boulevard
Madison, Wisconsin 53704
(608) 241-4471

92Z:6F



ecology and environment, inc.
111 WEST JACKSON BOULEVARD
CHICAGO, IL 60604

SCALE: 1 : 24000

DATE: APRIL 17, 1986

SITE LOCATION MAP
ELYRIA, OHIO

DRAWN BY

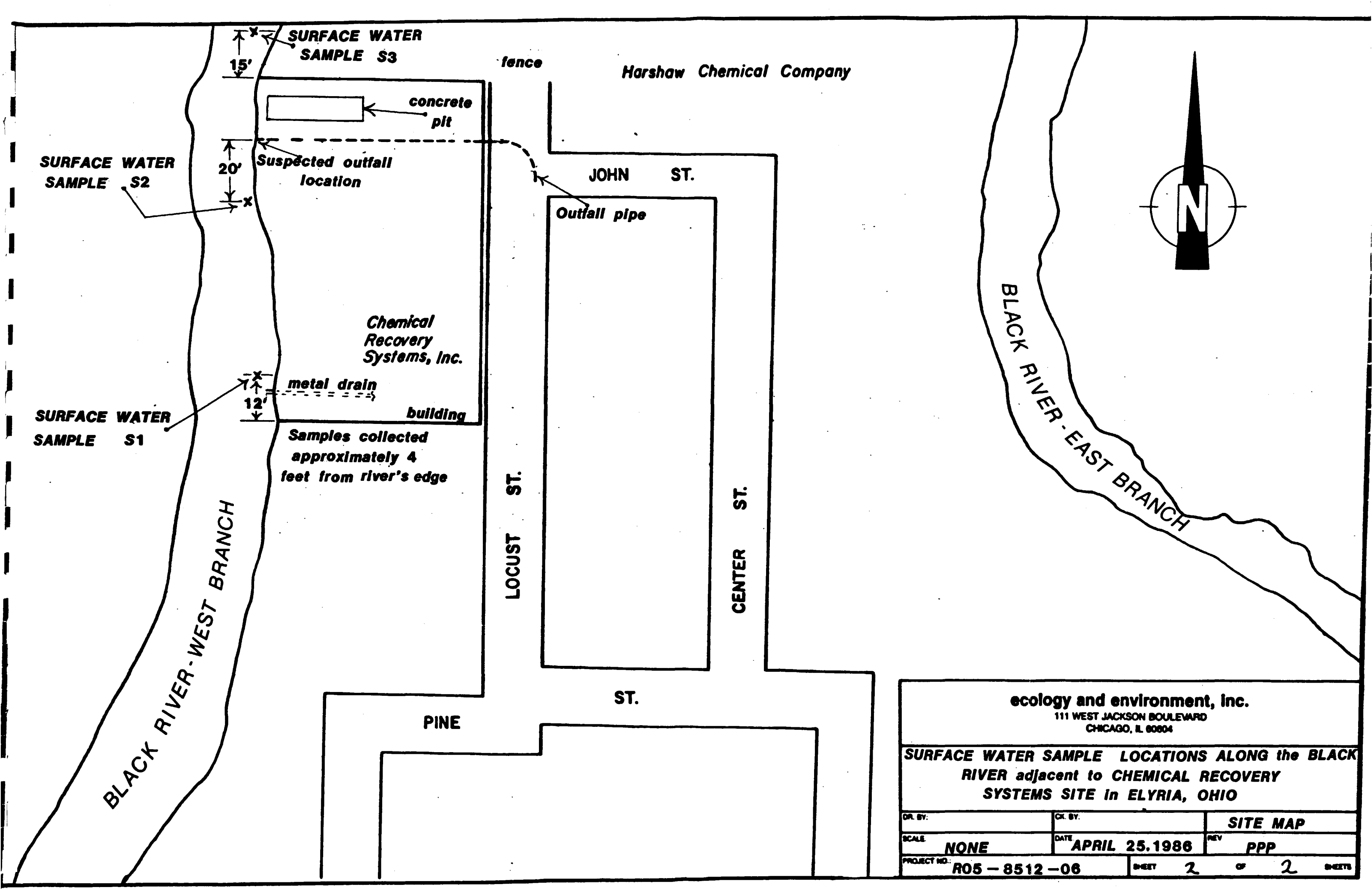
REVISED

CHEMICAL RECOVERY SYSTEMS SITE

GRAFTON, OHIO QUAD - 7.5MIN

DRAWING NUMBER

1



ecology and environment, inc.
111 WEST JACKSON BOULEVARD
CHICAGO, IL 60604

SURFACE WATER SAMPLE LOCATIONS ALONG the BLACK RIVER adjacent to CHEMICAL RECOVERY SYSTEMS SITE in ELYRIA, OHIO

DR. BY:	CK. BY:	SITE MAP	
SCALE NONE	DATE APRIL 25, 1986	REV PPP	
PROJECT NO. R05 - 8512 - 06	SHEET 2	OF 2	SHEETS

SDMS US EPA REGION V

COLOR-RESOLUTION - 2

IMAGERY INSERT FORM

The following page(s) of this document include color or resolution variations.
 Unless otherwise noted, these pages are available in monochrome. The original document is available for viewing at the Superfund Records Center.

SITE NAME	Chemical Recovery
DOC ID #	147702
DESCRIPTION OF ITEM(S)	Photos
PRP	RMD - Chemical Recovery
DOCUMENT VARIATION	<u> X </u> COLOR OR <u> </u> RESOLUTION
DATE OF ITEM(S)	February 5, 1986
NO. OF ITEMS	10
PHASE	Remediation
OPERABLE UNITS	
LOCATION	Box # <u> </u> Folder # <u> </u> Subsection <u> </u>
PHASE (AR DOCUMENTS ONLY)	<u> </u> Remedial <u> </u> Removal <u> </u> Deletion Docket <u> </u> Original <u> </u> Update # <u> </u> Volume <u> </u> of <u> </u>
COMMENT(S)	
Field Photography Log Sheets Pages 1-6	

DATE 2-5-86TIME 4:20 A.M. (P.M.)

DIRECTION: N NNE NE ENE

E ESE SE SSE

(S) SSW SW WSW

W WNW NW NNW

WEATHER Cool, Wet,Drizzle, Overcast.SITE Chem. Recovery SystemsTDD# R05-8512-06

PHOTOGRAPHED BY:

Dave Vaughn

SAMPLE ID# (if applicable)

SW 2 NEAR
OutfallDESCRIPTION: Far Away shot of sample location on the River.DATE 2-5-86TIME 4:20 A.M. (P.M.)

DIRECTION: N NNE NE ENE

E ESE SE SSE

(S) SSW SW WSW

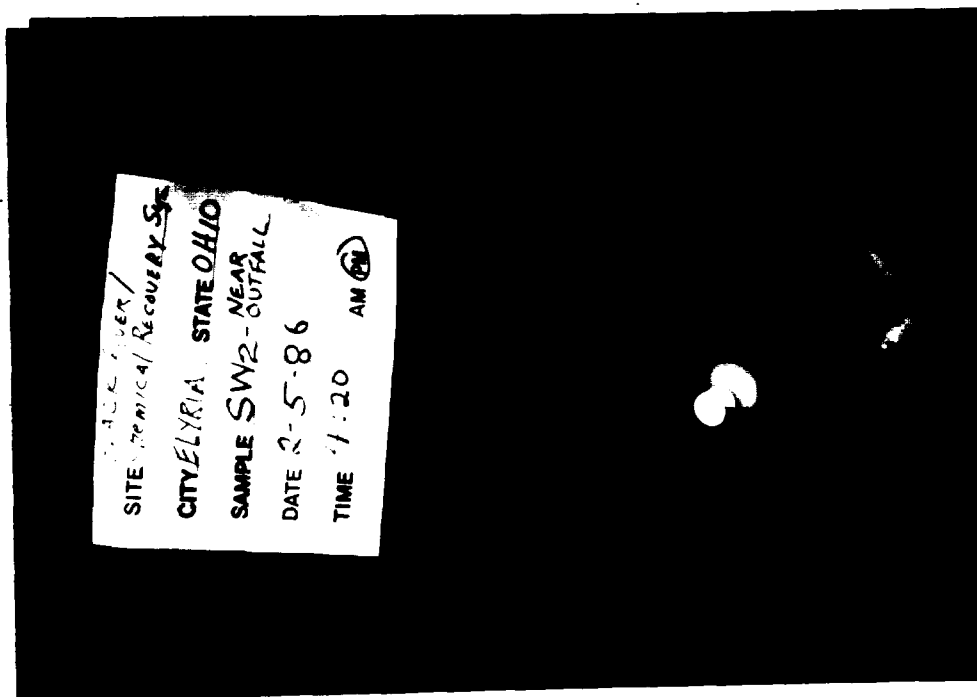
W WNW NW NNW

WEATHER Cool, Wet,Drizzle, OvercastSITE Chem. Recovery Syst.TDD# R05-8512-06

PHOTOGRAPHED BY:

Dave Vaughn

SAMPLE ID# (if applicable)

SW 2 NEAR
OutfallDESCRIPTION: Close up shot of sample location AND ID card.

DATE 2-5-86TIME 3:30 A.M. (P.M.)

DIRECTION: N NNE NE ENE

E ESE SE SSE

(S)SSW SW WSW

W WNW NW NNW

WEATHER Cool, wet,Drizzle, Overcast.SITE Chem. Recovery Syst.TDD# R05-8512-06

PHOTOGRAPHED BY:

Dave Vaughn

SAMPLE ID# (if applicable)

SW-1 (Downstream)DESCRIPTION: Looking downstream on Black River, East Branch
at sample location & surrounding area.DATE 2-5-86TIME 3:30 A.M. (P.M.)

DIRECTION: N NNE NE ENE

E ESE SE SSE

(S)SSW SW WSW

W WNW NW NNW

WEATHER Cool, wet,Drizzle, OvercastSITE Chem. Recov. Syst.TDD# R05-8512-06

PHOTOGRAPHED BY:

Dave Vaughn

SAMPLE ID# (if applicable)

SW-1 (Downstream)DESCRIPTION: Looking downstream at location of sample
collection, a close up view.

FIELD PHOTOGRAPHY LOG SHEET

PAGE

3

DATE 2-5-86

TIME 4:45 A.M. P.M.

DIRECTION: N NNE NE ENE

ESE SE SSE

S SSW SW WSW

W WNW NW NNW

WEATHER Cool, Wet,

Drizzle, Overcast.

SITE Chem. Recovery Syst.

TDD# 805-8512-06

PHOTOGRAPHED BY:

Dave Vaughn:

SAMPLE ID# (if applicable)

SW-3 (upstream)



DESCRIPTION: Sample close shot next to river where sample was collected. Compensation for poor lighting caused wash out of FD CARD.

DATE 2-5-86

TIME 4:45 A.M. P.M.

DIRECTION: N NNE NE ENE

ESE SE SSE

S SSW SW WSW

W WNW NW NNW

WEATHER Cool, Wet,

Drizzle, Overcast

SITE Chem. Recovery Syst.

TDD# 805-8512-06

PHOTOGRAPHED BY:

Dave Vaughn

SAMPLE ID# (if applicable)

SW-3 (upstream)



DESCRIPTION: Far shot of sample location looking downstream.

DATE 2-5-86

TIME 4:30 A.M. (P.M.)

DIRECTION: N NNE NE ENE

E ESE SE SSE

S SSW SW WSW

W WNW NW NNW

WEATHER Cool, Wet,

Drizzle, Overcast.

SITE Chem. Recovery Syst.

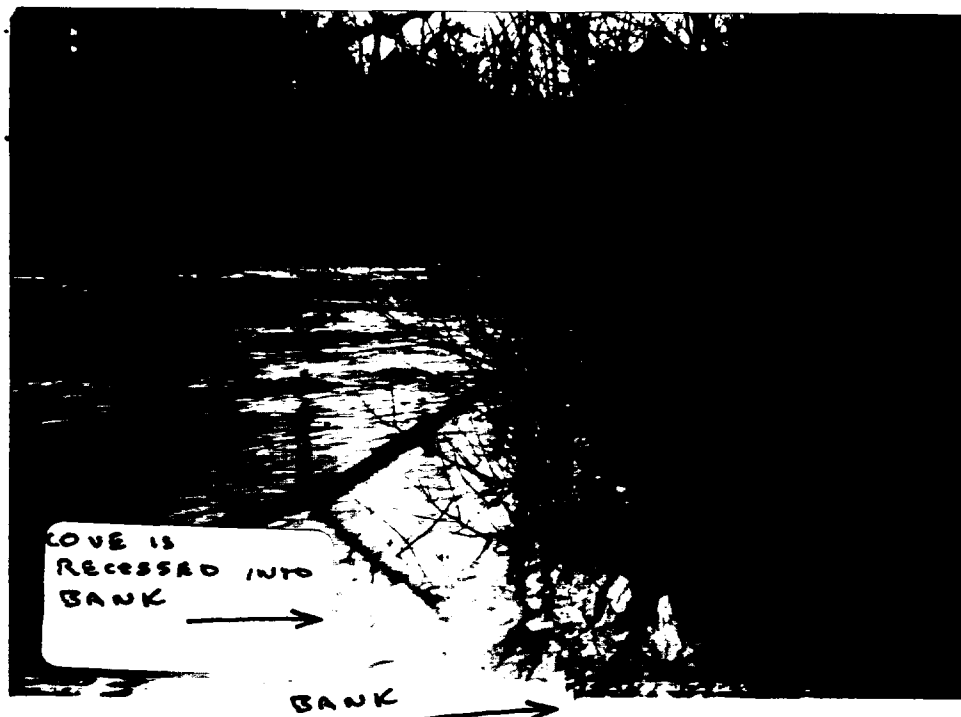
TDD# R05-8512-06

PHOTOGRAPHED BY:

DAVE VAUGHN

SAMPLE ID# (if applicable)

NA



DESCRIPTION: Looking upstream from cove area where and he 11
was suspected of existing. Cove area not shown but is
to the right of picture.

DATE 2-5-86

TIME 4:35 A.M. (P.M.)

DIRECTION: N NNE NE ENE

E ESE SE SSE

S SSW SW WSW

W WNW NW NNW

WEATHER Cool, Wet

Drizzle, Overcast

SITE Chem. Recovery Syst.

TDD# R05-8512-06

PHOTOGRAPHED BY:

DAVE VAUGHN

SAMPLE ID# (if applicable)

NA



DESCRIPTION: Looking Downstream from Cove area on River's
edge. Steep sloped walls along River shown in background

DATE 2-5-86TIME 4:25 A.M. (P.M.)

DIRECTION: N NNE NE ENE

E ESE SE SSE

(S) SSW SW WSW

W WNW NW NNW

WEATHER Cool, Wet,
Drizzle, Overcast.SITE Chem. Recovery Syst.TDD# RD 5-8512-06

PHOTOGRAPHED BY:

Dave Vaughn.

SAMPLE ID# (if applicable)

NADESCRIPTION: Looking downstream along bank of River. Note
the heavy vegetation and limited walking room to collect
samples.DATE 2-5-86TIME 4:25 A.M. (P.M.)

DIRECTION: N NNE NE ENE

E ESE SE SSE

S SSW SW WSW

W WNW NW (NNW)

WEATHER Cool, Wet,
Drizzle Overcast.SITE Chem. Recovery Syst.TDD# RD 5-8512-06

PHOTOGRAPHED BY:

DAVE VAUGHN.

SAMPLE ID# (if applicable)

NADESCRIPTION: Looking upstream from cone area indicating River
height and slopes along N. end of site on west side of River.



ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-863-9415

International Specialists in the Environment

Date Received for Review: 4/29/86 Date Review Completed: 5/5/86

TO: Pat Petrella

FROM: Suzanne Kozlowski

SUBJECT: Chemical Recovery Systems

Sample Description: Case # 5558 five (5) low water organics

Project Data Status: COMPLETE

FIT Data Review Findings:

See Tom Clyne's review

Additional Comments:

Book No. 5

Page No. 108

RECEIVED APR 29 1986

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 4/18/86

SUBJECT: Review of Region V CLP Data

Received for Review on 4 MAR 86

FROM: Curtis Ross, Director (SSCRL)
Central Regional Laboratory

Thom M. Ross

TO: Data User: FIT

We have reviewed the data for the following case(s).

SITE NAME CHEMICAL RECOVER SYSTEMS SMO Case No. 5558

No. of D.U./Activity
EPA Data Set No SF 3031 Samples 5 Numbers Y905/C48500

CRL No. B6FDD4S78 TO B6FDD4S80

SMO TRAFFIC No. EE993, EE994, EG536 TO EG538

Hrs. Required
CLP Laboratory HAZELTON for review: 4

Following are our findings:

- A SURROGATES VOA AND SV ARE ACCEPTABLE. PESTICIDES HAS A LOW DBC FOR EE994. THE REMAINING SURROGATES ARE ACCEPTABLE.
- B MS/MSD ENDRIN HAS A 34 AND 42% XR LEVEL. THE REMAINING RXD AND XR ARE ACCEPTABLE.
- C LAB BLANKS MB-1, 30164 HAD TOLUENE (CRDL). MB-1, 30172 HAD ACETONE (14) AND TOLUENE (1). THE REMAINING BLANKS ARE ACCEPTABLE.
- D TUNING ACCEPTABLE
- E DETECTION THIS LAB HAS SV DETECTION LIMITS 2X THE NORMAL CRDL. F. THOMAS IS INVESTIGATING THIS PROBLEM.

- () Data are acceptable for use.
(✓) Data are acceptable for use with qualifications.
() Data are preliminary - pending verification by contractor lab.
() Data are unacceptable.

Thom M. Ross

cc: Dr. Alfred Haerber/ Joan Fisk/Gary Ward. EPA Support Services.
Ross K. Robeson, EMSL-Las Vegas
Don Trees, CLP/Sample Management Office

CASE: 5558 USER'S INFORMATION)))))
DATE: 25 MARCH 86 SITE: CHEMICAL RECOVERY SYSTEMS
 REVIEWER: TOM CLYNE

EE993 TOLUENE FOUND IN THE BLANK. DO NOT USE TOLUENE.
 TOTAL XYLENE FOUND, BUT BELOW CRDL. THERE IS A TIC
 LAB ARTIFACT.
 NO HRS HITS

EE994 TOLUENE IN THE BLANK, DO NOT USE.
 XYLENE IS A --J--. TIC IS AN ARTIFACT.
 NO HRS HITS.

EG 536 TOLUENE FOUND IN THE BLANK, DO NOT USE.
 TIC ARE ARTIFACTS.
 NO HRS HITS.

EG 537 TOLUENE FOUND IN BLANK, DO NOT USE. THE TIC IS A LAB
 ARTIFACT FOR SV AND UNKNOWN IN THE VOA.
 NO HRS HITS

EG 538 TOLUENE FOUND IN THE BLANK, DO NOT USE.
 TOTAL XYLENES FOUND, BUT --J--. THE TIC IS A LAB
 ARTIFACT.
 NO HRS HITS.

SUMMARY: THERE ARE NO HRS HITS IN THIS DATA PACKAGE.

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HAZLETON LABORATORIES AMERICA, INC

3301 KINSMAN BLVD. • P.O. BOX 7545 • MADISON, WI 53707 • (608) 241-4471 • TLX 703956 HAZRAL MDS UD

February 21, 1986

Sample Management Office
Viar and Company
300 Noth Lee Street
Alexandria VA 22314

Enclosed please find the data packages for Case No. 5558. These samples were received on February 6, 1986 from U. S. EPA Region V. All samples were analyzed and reported according to the protocols provided under our Contract No. 68-01-7146.

Please note the following summary comments relating to the contractual quality control items in this case:

- o GC-MS Tuning. All tuning requirements for both BFB and DFTPP for samples analyzed in this case were within contract criteria.
- o Instrumental Calibrations. All instrumental calibrations for all fractions analyzed (VDA, BNA, and pesticides) were within contract criteria for both initial and continuing calibrations.

Please note that on the Pesticide Evaluation Standards Summary (Form VIII), DBC is not added to our individual Mix B, toxaphene, or PCB 1260 standards when co-elution problems interfere with either a specific target compound or a major identifying peak on the column used. We also use an extra standard we call "column check" which contains only DDT and endrin and is used exclusively for the calculation of breakdown.

- o Surrogate Recoveries. The surrogate recoveries calculated and reported for the volatile, semi-volatile and pesticide fractions were found within contract limits with one exception. The DBC surrogate was outside of the advisory limits (low end), for sample EE994 of the pesticide fraction.
- o Method Blanks. All method blanks analyzed with this case were found to be within acceptable contract criteria for all fractions.

Sample Management Office
February 21, 1986
Page 2

RECEIVED APR 29 1986

If you have any questions regarding this case or need any further clarifications, please feel free to call.

Sincerely,



David C. Hills
Manager, Environmental Analysis

DCH/msw

cc: USEPA Region V
USEPA EMSL-LV
Central File

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In Reference to Case No(s):

5558

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Telephone Record Log

Date of Call:

25 Mar 86

Laboratory Name:

Hazleton Lab

Lab Contact:

DAVE HILL

Region:

V

Regional Contact:

Call Initiated By:

Laboratory

☒ Region

In reference to data for the following sample number(s):

(1) DT X2 (SV) have been done for Hazleton

(2) Emergency

(3) Rejected I.D.T. at 37 can see 11

Summary of Questions/Issues Discussed:

(1)

(2) Lead concentration numbers are 0% not 100%

(3) DT locations may have representability problems

Summary of Resolution:

Signature

[Signature]

Date

25 Mar 86

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

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86FP04578

Sample Number
EE 993

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES
Lab Sample ID No: 60201135
Sample Matrix: WATER
Data Release Authorized By: David C. Webb

Case No: 5558
QC Report No: _____
Contract No: 68-01-7146
Date Sample Received: 2-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 2-8-86 FRN 30165
Date Analyzed: 2-9-86 1317
Conc/Dil Factor: 1 pH _____
Percent Moisture: (Not Decanted) _____

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10 U
74-83-9	Bromomethane	10 U
75-01-4	Vinyl Chloride	10 U
75-00-3	Chloroethane	10 U
75-08-2	Methylene Chloride	5 U
67-64-1	Acetone	10 U
75-18-0	Carbon Disulfide	5 U
75-35-4	1,1-Dichloroethane	5 U
75-34-3	1,1-Dichloroethane	5 U
184-80-5	Trans-1,2-Dichloroethane	5 U
67-66-3	Chloroform	5 U
107-06-2	1,2-Dichloroethane	5 U
75-83-3	2-Butanone	10 U
71-68-8	1,1,1-Trichloroethane	5 U
84-23-5	Carbon Tetrachloride	5 U
108-05-4	Vinyl Acetate	10 U
75-27-4	Bromodichloromethane	5 U

CAS Number		ug/l or ug/Kg (Circle One)
75-87-8	1,2-Dichloropropene	5 U
10081-02-6	Trans-1,3-Dichloropropene	5 U
75-01-6	Trichloroethene	5 U
124-48-1	Dibromochloromethane	5 U
75-00-5	1,1,2-Trichloroethane	5 U
71-43-2	Benzene	5 U
10081-01-5	cis-1,3-Dichloropropene	5 U
110-75-8	2-Chloroethylvinylether	10 U
75-28-2	Bromoform	5 U
108-10-1	4-Methyl-2-Pentanone	10 U
891-78-8	2-Hexanone	10 U
127-18-4	Tetrachloroethene	5 U
75-34-8	1,1,2,2-Tetrachloroethane	5 U
108-98-3	Toluene	4-58 5 U
108-90-7	Chlorobenzene	5 U
100-41-4	Ethylbenzene	5 U
100-42-5	Styrene	5 U
	Total Xylenes	3 J 5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used.
Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value If the result is a value greater than or equal to the detection limit, report the value
- U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U to g. 10U/l based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J

- C This flag applies to pesticide parameters where the identification has been confirmed by GC MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC MS
- B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action
- Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report

NO
7C
TC

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Laboratory Name HAZLETON LABORATORIES
 Case No: 5558

Sample Number
EE 993

Organics Analysis Data Sheet
 (Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)
 Date Extracted / Prepared: 2-6-86
 Date Analyzed: 2-6-86
 Conc./Dil Factor: 1
 Percent Moisture (Decanted): 1902

GPC Cleanup ☐ Yes ☒ No
 Separatory Funnel Extraction ☒ Yes
 Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-98-2	Phenol	20 U
111-44-4	bis-2-Chloroethyl Ether	20 U
95-87-8	2-Chlorophenol	20 U
541-73-1	1, 2-Dichlorobenzene	20 U
108-46-7	1, 4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-80-1	1, 3-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
30438-32-9	bis(2-chloroethoxy) Ether	20 U
108-44-8	4-Methylphenol	20 U
621-84-7	N-Nitroso-Di-n-Propylamine	20 U
67-72-1	Hexachloroethane	20 U
96-98-3	Nitrobenzene	20 U
78-88-1	Isophenol	20 U
88-78-8	2-Nitrophenol	20 U
105-67-9	2, 4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	100 U
111-91-1	bis-2-Chloroethoxy Methane	20 U
120-83-2	2, 4-Dichlorophenol	20 U
120-82-1	1, 2, 4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
108-47-8	4-Chloroaniline	20 U
87-68-3	Hexachlorobutadiene	20 U
89-80-7	4-Chloro-3-Methylphenol	20 U
91-87-8	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	20 U
88-08-2	2, 4, 6-Trichlorophenol	20 U
95-95-4	2, 4, 5-Trichlorophenol	100 U
91-88-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethyl Phthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	100 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	20 U
51-28-8	2, 4-Dinitrophenol	100 U
100-02-7	4-Nitrophenol	100 U
132-84-9	Dibenzofuran	20 U
121-14-2	2, 4-Dinitrotoluene	20 U
808-20-2	2, 6-Dinitrotoluene	20 U
94-68-2	Diethylphthalate	20 U
7008-72-3	4-Chlorophenyl-phenylether	20 U
96-73-7	Fluorene	20 U
100-01-8	4-Nitroaniline	100 U
534-82-1	4, 6-Dinitro-2-Methylphenol	100 U
94-30-6	N-Nitrosodiphenylamine (1)	20 U
101-85-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-8	Pentachlorophenol	100 U
95-01-8	Phenanthrene	20 U
120-12-7	Anthracene	20 U
94-74-2	Di-n-Butylphthalate	20 U
208-44-0	Fluoranthene	20 U
129-00-0	Pyrene	20 U
95-48-7	Butylbenzylphthalate	20 U
91-84-1	3, 3'-Dichlorobenzidine	20 U
54-85-3	Benzoid Anthracene	20 U
117-81-7	bis(2-Ethylhexyl)Phthalate	20 U
218-01-9	Chrysene	20 U
117-84-0	Di-n-Octyl Phthalate	20 U
208-99-2	Benzobifluoranthene	20 U
207-08-9	Benzokifluoranthene	20 U
50-32-8	Benzoid Pyrene	20 U
183-38-5	Indeno(1, 2, 3-cd)Pyrene	20 U
63-70-3	Dibenz(a, h)Anthracene	20 U
191-24-2	Benzoid, h, i)Perylene	20 U

(1) Cannot be separated from diphenylamine

Laboratory Name HAZLETON LABORATORIES RECEIVED APR 29 1986
 Case No 5558

Sample Number
EE 993

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)
 Date Extracted/Prepared 2-6-86
 Date Analyzed 2-12-86
 Conc/Dil Factor 1
 Percent Moisture (decanted)

GPC Cleanup ☐ Yes ☒ No
 Separatory Funnel Extraction ☒ Yes
 Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		<u>ug/l</u> or <u>ug/Kg</u> (Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
959-98-8	Endosulfan I	0.05 U
80-57-1	Dieldrin	0.10 U
72-85-9	4, 4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-85-9	Endosulfan II	0.10 U
72-84-8	4, 4'-DDD	0.10 U
1031-07-8	Endosulfan Sulfate	0.10 U
80-29-3	4, 4'-DDT	0.10 U
72-43-5	Methoxychlor	0.50 U
53494-70-8	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.50 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.50 U
11104-28-2	Aroclor-1221	0.50 U
11141-16-5	Aroclor-1232	0.50 U
83468-21-9	Aroclor-1242	0.50 U
12672-29-8	Aroclor-1248	0.50 U
11097-69-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000 ml or W_s V_i 10,000 ul V_t 4.0 ul
 $V_t = 10,000$ $V_i =$

1ery Name: WELTON LABORATORIES

10. 5558

Sample Number

EE 993

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

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* product of the aldol condensation of acetone

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86FP04379

Sample Number
EE 994

Organics Analysis Data Sheet
(Page 1)

Laboratory Name HAZLETON LABORATORIES
Lab Sample ID No. 60201136
Sample Matrix: WATER
Data Release Authorized By: David C. Webb

Case No: 5558
QC Report No: _____
Contract No: 68-01-7146
Data Sample Received: 2-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 2-8-86 FRN 30166
Date Analyzed: 2-8-86 1355
Conc/Dil Factor: 1 pH _____
Percent Moisture: (Not Decanted) _____

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10 U
74-83-9	Bromomethane	10 U
75-01-4	Vinyl Chloride	10 U
75-00-3	Chloroethane	10 U
75-08-2	Methylene Chloride	5 U
67-64-1	Acetone	10 U
75-15-0	Carbon Disulfide	5 U
75-35-4	1, 1-Dichloroethane	5 U
75-34-3	1, 1-Dichloroethane	5 U
156-60-5	Trans-1, 2-Dichloroethane	5 U
67-66-3	Chloroform	5 U
107-06-2	1, 2-Dichloroethane	5 U
75-83-3	2-Butanone	10 U
71-55-8	1, 1, 1-Trichloroethane	5 U
56-23-5	Carbon Tetrachloride	5 U
108-06-4	Vinyl Acetate	10 U
75-27-4	Bromodichloromethane	5 U

CAS Number		ug/l or ug/Kg (Circle One)
75-87-5	1, 2-Dichloropropene	5 U
10061-02-8	Trans-1, 3-Dichloropropene	5 U
75-01-8	Trichloroethene	5 U
124-48-1	Dibromochloromethane	5 U
75-00-8	1, 1, 2-Trichloroethane	5 U
71-43-2	Benzene	5 U
10061-01-8	cis-1, 3-Dichloropropene	5 U
110-75-8	2-Chloroethylvinylether	10 U
75-25-2	Bromoform	5 U
108-10-1	4-Methyl-2-Pentanone	10 U
691-78-8	2-Hexanone	10 U
127-18-4	Tetrachloroethene	5 U
75-34-5	1, 1, 2, 2-Tetrachloroethane	5 U
108-88-3	Toluene	3 JA 2-8
108-90-7	Chlorobenzene	5 U
100-41-4	Ethylbenzene	5 U
100-42-5	Styrene	5 U
	Total Xylenes	2 J 5-8

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used.
Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- Value If the result is a value greater than or equal to the detection limit, report the value
- U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U to g. 10U based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum obtainable detection limit for the sample
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J

- C This flag applies to pesticide parameters where the identification has been confirmed by GC MS. Single component pesticides ≥ 10 ug/l in the final extract should be confirmed by GC MS
- B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action
- Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report

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Laboratory Name HAZLETON LABORATORIES

Case No. 5558

Sample Number
EE 994

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 2-6-86

Date Analyzed: 2-6-86

Conc/Dil Factor: 1

Percent Moisture (Decanted) 1950

GPC Cleanup ☐ Yes ☒ No

Separatory Funnel Extraction ☒ Yes

Continuous Liquid-Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
105-85-2	Phenol	20 U
111-44-4	bis(2-Chloroethoxy)Ether	20 U
95-57-8	2-Chlorophenol	20 U
841-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
30438-32-9	bis(2-chloroethoxy)Ether	20 U
106-44-8	4-Methylphenol	20 U
621-84-7	N-Nitroso-Di-n-Propylamine	20 U
67-72-1	Hexachloroethane	20 U
96-96-3	Nitrobenzene	20 U
78-88-1	Isophorone	20 U
88-78-8	2-Nitrophenol	20 U
106-67-9	2,4-Dimethylphenol	20 U
68-88-0	Benzoic Acid	100 U
111-91-1	bis(2-Chloroethoxy)Methane	20 U
120-83-2	2,4-Dichlorophenol	20 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	20 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-Methylphenol	20 U
91-57-8	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	20 U
88-06-2	2,4,6-Trichlorophenol	20 U
95-96-4	2,4,5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethyl Phthalate	20 U
206-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	100 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	20 U
81-29-8	2,4-Dinitrophenol	100 U
100-02-7	4-Nitrophenol	100 U
132-84-8	Dibenzofuran	20 U
121-14-2	2,4-Dinitrotoluene	20 U
206-20-2	2,6-Dinitrotoluene	20 U
84-88-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
95-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	100 U
834-82-1	4,6-Dinitro-2-Methylphenol	100 U
86-30-6	N-Nitrosodiphenylamine (1)	20 U
101-85-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-88-8	Pentachlorophenol	100 U
95-01-8	Phenanthrene	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	20 U
129-00-0	Pyrene	20 U
85-68-7	Butylbenzylphthalate	20 U
91-84-1	3,3'-Dichlorobenzidine	20 U
86-68-3	Benz[a]Anthracene	20 U
117-81-7	bis(2-Ethylhexyl)Phthalate	20 U
218-01-9	Chrysene	20 U
117-84-0	Di-n-Octyl Phthalate	20 U
205-99-2	Benz[b]Fluoranthene	20 U
207-08-9	Benz[k]Fluoranthene	20 U
50-32-8	Benz[a]Pyrene	20 U
193-39-5	Indeno[1,2,3-cd]Pyrene	20 U
83-70-3	Dibenz[hi]Anthracene	20 U
191-24-2	Benz[ghi]Perylene	20 U

(1) Cannot be separated from diphenylamine

Laboratory Name HAZLETON LABORATORIES RECEIVED APR 29 1986
Case No 5558

Sample Number
EE 994

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 2-6-86
Date Analyzed: 2-12-86
Conc/Dil Factor: 1
Percent Moisture (decanted) —

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid-Liquid Extraction ☐ Yes

CAS Number		<u>ug/l or ug/Kg</u> (Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
959-88-8	Endosulfan I	0.05 U
80-57-1	Dieldrin	0.10 U
72-85-9	4,4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-85-9	Endosulfan II	0.10 U
72-84-8	4,4'-DDD	0.10 U
1031-07-8	Endosulfan Sulfate	0.10 U
50-29-3	4,4'-DDT	0.10 U
72-43-5	Methoxychlor	0.50 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.50 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.50 U
11104-28-2	Aroclor-1221	0.50 U
11141-18-5	Aroclor-1232	0.50 U
53469-21-9	Aroclor-1242	0.50 U
12672-29-6	Aroclor-1248	0.50 U
11097-89-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000 ml or W_s — V_i 10,000 ul V_t 4.0 ul

No. 5558

Sample Number
EE 994

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

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[illegible]

* product of the aldol condensation of acetone

76EP04D78

Sample Number

EG 536

Organics Analysis Data Sheet
(Page 1)

RECEIVED APR 29 1986

Laboratory Name HAZLETON LABORATORIES
 Lab Sample ID No: 60201137
 Sample Matrix: WATER
 Data Release Authorized By: David C. Webb

Case No: 5558
 OC Report No: _____
 Contract No: 68-01-7146
 Date Sample Received: 2-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 2-8-86 FRN 30169
 Date Analyzed: 2-8-86 1551
 Conc/Dil Factor: 1 pH _____
 Percent Moisture: (Not Decanted) _____

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10 U
74-83-9	Bromomethane	10 U
75-01-4	Vinyl Chloride	10 U
75-00-3	Chloroethane	10 U
75-08-2	Methylene Chloride	5 U
67-64-1	Acetone	10 U
75-18-0	Carbon Disulfide	5 U
75-35-4	1, 1-Dichloroethane	5 U
75-34-3	1, 1-Dichloroethane	5 U
156-80-5	Trans-1, 2-Dichloroethane	5 U
67-66-3	Chloroform	5 U
107-06-2	1, 2-Dichloroethane	5 U
75-83-3	2-Butanone	10 U
71-55-6	1, 1, 1-Trichloroethane	5 U
56-23-5	Carbon Tetrachloride	5 U
108-05-4	Vinyl Acetate	10 U
75-27-4	Bromodichloromethane	5 U

CAS Number		ug/l or ug/Kg (Circle One)
75-87-5	1, 2-Dichloropropane	5 U
10081-02-6	Trans-1, 3-Dichloropropane	5 U
75-01-6	Trichloroethane	5 U
124-48-1	Dibromochloromethane	5 U
75-00-5	1, 1, 2-Trichloroethane	5 U
71-43-2	Benzene	5 U
10081-01-5	cis-1, 3-Dichloropropane	5 U
110-75-8	2-Chloroethylvinylether	10 U
75-25-2	Bromoform	5 U
108-10-1	4-Methyl-2-Pentanone	10 U
681-78-8	2-Hexanone	10 U
127-18-4	Tetrachloroethane	5 U
75-34-5	1, 1, 2, 2-Tetrachloroethane	5 U
108-88-3	Toluene	4 BT 2-11
108-90-7	Chlorobenzene	5 U
100-41-4	Ethylbenzene	5 U
100-42-5	Styrene	5 U
	Total Xylenes	12 J 5-4

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used.
 Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the maximum detection limit for the sample with the U to g. 10U based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the maximum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero to g. 10U. If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single compound pesticides ≥ 10 ug/l in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name HAZLETON LABORATORIES
Case No. 5558

RECEIVED APR 29 1986

Sample Number
E6 536

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted /Prepared: 2-6-86

Date Analyzed: 2-6-86

Conc/Dil Factor: 1 FLN 27073

Percent Moisture (Decanted) 1637

GPC Cleanup ☐ Yes ☒ No

Separatory Funnel Extraction ☒ Yes

Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	20 U
111-44-4	bis-2-Chloroethyl Ether	20 U
95-57-8	2-Chlorophenol	20 U
941-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-81-8	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
39638-32-9	bis(2-chloroethoxy) Ether	20 U
106-44-8	4-Methylphenol	20 U
621-84-7	N-Nitroso-Di-n-Propylamine	20 U
67-72-1	Hexachloroethane	20 U
98-96-3	Nitrobenzene	20 U
78-89-1	Isophenone	20 U
88-78-8	2-Nitrophenol	20 U
106-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	100 U
111-91-1	bis-2-Chloroethyl Methane	20 U
120-83-2	2,4-Dichlorophenol	20 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	20 U
87-68-3	Hexachlorobutadiene	20 U
89-80-7	4-Chloro-3-Methylphenol	20 U
91-57-8	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	20 U
88-06-2	2,4,6-Trichlorophenol	20 U
95-96-4	2,4,5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethyl Phthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	100 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-8	Acenaphthene	20 U
81-28-5	2,4-Dinitrophenol	100 U
100-02-7	4-Nitrophenol	100 U
132-84-9	Dibenzofuran	20 U
121-14-2	2,4-Dinitrotoluene	20 U
208-20-2	2,6-Dinitrotoluene	20 U
84-86-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
98-73-7	Fluorene	20 U
100-01-8	4-Nitroaniline	100 U
834-82-1	4,6-Dinitro-2-Methylphenol	100 U
98-30-8	N-Nitrosodiphenylamine (1)	20 U
101-85-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-8	Pentachlorophenol	100 U
85-01-8	Phenanthrene	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
208-44-0	Fluoranthene	20 U
129-00-0	Pyrene	20 U
85-68-7	Butylbenzylphthalate	20 U
91-84-1	3,3'-Dichlorobenzidine	20 U
86-66-3	Benz[a]Anthracene	20 U
117-81-7	bis(2-Ethylhexyl)Phthalate	20 U
218-01-9	Chrysene	20 U
117-84-0	Di-n-Octyl Phthalate	20 U
205-99-2	Benzobifluoranthene	20 U
207-08-9	Benzokifluoranthene	20 U
50-32-8	Benzol[a]Pyrene	20 U
193-39-5	Indeno[1,2,3-cd]Pyrene	20 U
83-70-3	Dibenz[ah]Anthracene	20 U
191-24-2	Benzol[g,h,i]Perylene	20 U

(1)-Cannot be separated from diphenylamine

Laboratory Name HAZLETON LABORATORIESCase No 3558

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Sample Number
EC 536Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 2-6-86
 Date Analyzed: 2-12-86
 Conc/Dil Factor: 1
 Percent Moisture (decanted) —

GPC Cleanup ☐ Yes ☒ No
 Separatory Funnel Extraction ☒ Yes
 Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		<u>ug</u> / or ug / Kg (Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
959-88-8	Endosulfan I	0.05 U
80-57-1	Dieldrin	0.10 U
72-85-8	4,4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-85-9	Endosulfan II	0.10 U
72-84-8	4,4'-DDD	0.10 U
1031-07-8	Endosulfan Sulfate	0.10 U
50-29-3	4,4'-DDT	0.10 U
72-43-5	Methoxychlor	0.50 U
53484-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.50 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.50 U
11104-28-2	Aroclor-1221	0.50 U
11141-18-5	Aroclor-1232	0.50 U
53489-21-9	Aroclor-1242	0.50 U
12672-29-6	Aroclor-1248	0.50 U
11097-89-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

 V_i = Volume of extract injected (ul) V_s = Volume of water extracted (ml) W_s = Weight of sample extracted (g) V_t = Volume of total extract (ul)

v_s 1000 ml or W_s — v_i 10,000 ul v_t 4.0 ul

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86FPO4 R10

Sample Number
EG537

Organics Analysis Data Sheet
(Page 1)

Laboratory Name HAZLETON LABORATORIES
Lab Sample ID No: 60201138
Sample Matrix: WATER
Data Release Authorized By: David C. Vell

Case No: 5558
QC Report No: _____
Contract No: 68-01-7146
Date Sample Received: 2-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 2-8-86 FRN 30170
Date Analyzed: 2-8-86 1630
Conc/Dil Factor: 1 pH _____
Percent Moisture: (Not Decanted) _____

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10 U
74-83-9	Bromomethane	10 U
75-01-4	Vinyl Chloride	10 U
75-00-3	Chloroethane	10 U
75-08-2	Methylene Chloride	5 U
67-64-1	Acetone	10 U
75-15-0	Carbon Disulfide	5 U
75-35-4	1,1-Dichloroethane	5 U
75-34-3	1,1-Dichloroethane	5 U
156-80-5	Trans-1,2-Dichloroethane	5 U
67-66-3	Chloroform	5 U
107-06-2	1,2-Dichloroethane	5 U
78-83-3	2-Butanone	10 U
71-55-8	1,1,1-Trichloroethane	5 U
56-23-5	Carbon Tetrachloride	5 U
105-05-4	Vinyl Acetate	10 U
75-27-4	Bromodichloromethane	5 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	5 U
10061-02-8	Trans-1,3-Dichloropropane	5 U
79-01-6	Trichloroethane	5 U
124-48-1	Dibromochloromethane	5 U
79-00-5	1,1,2-Trichloroethane	5 U
71-43-2	Benzene	5 U
10061-01-5	cis-1,3-Dichloropropane	5 U
110-75-8	2-Chloroethylvinylether	10 U
78-25-2	Bromalform	5 U
108-10-1	4-Methyl-2-Pentanone	10 U
581-78-6	2-Hexanone	10 U
127-18-4	Tetrachloroethane	5 U
78-34-5	1,1,2,2-Tetrachloroethane	5 U
108-88-3	Toluene	2 83 5-4 No TC
108-90-7	Chlorobenzene	5 U
100-41-4	Ethylbenzene	5 U
100-42-5	Styrene	5 U
	Total Xylenes	5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used.
Additional flags or footnotes explaining results are encouraged. However, the
definition of each flag must be explicit.

- Value If the result is a value greater than or equal to the detection limit, report the value
- U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U to g. 10U based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum detectable detection limit for the sample
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J

- C This flag applies to pesticide parameters where the identification has been confirmed by GC MS. Single component pesticides ≥ 10 ng/l in the final extract should be confirmed by GC MS
- B This flag is used when the analysis is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action
- Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report

dry Name HAZLETON LABORATORIES

5558

Sample Number

EG 536

Organics Analysis Data Sheet

(Page 4)

Tentatively Identified Compounds

RECEIVED APR 29 1980

[illegible]

* product of the aldol condensation of acetone

Laboratory Name HAZLETON LABORATORIES

Case No. 5558

RECEIVED APR 29 1986

Sample Number
EG 537

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted / Prepared: 2-6-86

Date Analyzed: 2-6-86

Conc/Dil Factor: 1 FEN 27074

Percent Moisture (Decanted) 1726

GPC Cleanup ☐ Yes ☒ No

Separatory Funnel Extraction ☒ Yes

Continuous Liquid-Liquid Extraction ☐ Yes

CAS Number		ug / l or ug / Kg (Circle One)
108-95-2	Phenol	20 U
111-44-4	bis-2-Chloroethyl Ether	20 U
95-57-8	2-Chlorophenol	20 U
941-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-91-6	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
39638-32-9	bis(2-chloroethoxy) Ether	20 U
106-44-8	4-Methylphenol	20 U
621-84-7	N-Nitroso-Di-n-Propylamine	20 U
67-72-1	Hexachlorobenzene	20 U
98-95-3	Nitrobenzene	20 U
78-88-1	Isophorone	20 U
88-78-8	2-Nitrophenol	20 U
106-67-9	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	100 U
111-91-1	bis-2-Chloroethoxy Methane	20 U
120-83-2	2,4-Dichlorophenol	20 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	20 U
87-68-3	Hexachlorobutadiene	20 U
88-80-7	4-Chloro-3-Methylphenol	20 U
91-57-8	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	20 U
88-06-2	2,4,6-Trichlorophenol	20 U
95-95-4	2,4,6-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethyl Phthalate	20 U
208-98-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	100 U

CAS Number		ug / l or ug / Kg (Circle One)
83-32-9	Acenaphthene	20 U
81-28-5	2,4-Dinitrophenol	100 U
100-02-7	4-Nitrophenol	100 U
132-84-9	Dibenzofuran	20 U
121-14-2	2,4-Dinitrotoluene	20 U
908-20-2	2,6-Dinitrophenol	20 U
84-88-2	Diethylphthalate	20 U
7009-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	100 U
534-82-1	4,6-Dinitro-2-Methylphenol	100 U
96-30-6	N-Nitrosodiphenylamine (1)	20 U
101-85-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-88-5	Pentachlorophenol	100 U
85-01-8	Phenanthrene	20 U
120-12-7	Anthracene	20 U
94-74-2	Di-n-Butylphthalate	20 U
208-44-0	Fluoranthene	20 U
129-00-0	Pyrene	20 U
85-88-7	Butylbenzylphthalate	20 U
91-94-1	3,3'-Dichlorobenzidine	20 U
88-85-3	Benz[a]Anthracene	20 U
117-81-7	bis(2-Ethylhexyl)Phthalate	20 U
218-01-9	Chrysene	20 U
117-84-0	Di-n-Octyl Phthalate	20 U
205-99-2	Benz[b]Fluoranthene	20 U
207-08-9	Benz[k]Fluoranthene	20 U
50-32-8	Benz[a]Pyrene	20 U
193-39-5	Indeno(1,2,3-cd)Pyrene	20 U
53-70-3	Dibenz[a,h]Anthracene	20 U
191-24-2	Benz[a,g,h,i]Perylene	20 U

(1) Cannot be separated from diphenylamine

Laboratory Name HAZLETON LABORATORIES RECEIVED APR 29 1986
 Case No 5558

Sample Number
EG 557

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)
 Date Extracted/Prepared 2-6-86
 Date Analyzed 2-12-86
 Conc/Dil Factor: 1
 Percent Moisture (decanted) —

GPC Cleanup ☐ Yes ☒ No
 Separatory Funnel Extraction ☒ Yes
 Continuous Liquid - Liquid Extraction ☐ Yes

CAS Number		ug/L or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
958-88-8	Endosulfan I	0.05 U
60-57-1	Dieldrin	0.10 U
72-55-9	4,4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-85-9	Endosulfan II	0.10 U
72-84-8	4,4'-DDD	0.10 U
1031-07-9	Endosulfan Sulfate	0.10 U
50-29-3	4,4'-DDT	0.10 U
72-43-5	Methoxychlor	0.50 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.50 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.50 U
11104-28-2	Aroclor-1221	0.50 U
11141-16-5	Aroclor-1232	0.50 U
53469-21-9	Aroclor-1242	0.50 U
12672-29-6	Aroclor-1248	0.50 U
11097-69-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000 ml or W_s — V_i 10,000 ul V_t 4.0 ul

Party Name

HAZLETON LABORATORIES

5559

EG 637

Organics Analysis Data Sheet

(Page 4)

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Tentatively Identified Compounds

[illegible]

* product of the aldol condensation of acetone.

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86FPO4580

Sample Number
EG 538Organics Analysis Data Sheet
(Page 1)

Laboratory Name HAZLETON LABORATORIES
 Lab Sample ID No. 60201139
 Sample Matrix: WATER
 Data Release Authorized By: David C. Hill

Case No. 5558
 QC Report No. _____
 Contract No. 68-01-7146
 Date Sample Received: 2-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)Date Extracted/Prepared: 2-8-86 FRN 30171Date Analyzed: 2-8-86 1710Conc/Dil Factor: 1 pH _____

Percent Moisture: (Not Decanted) _____

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10 U
74-83-9	Bromomethane	10 U
75-01-4	Vinyl Chloride	10 U
75-00-3	Chloroethane	10 U
75-08-2	Methylene Chloride	5 U
67-64-1	Acetone	10 U
75-15-0	Carbon Disulfide	5 U
75-35-4	1, 1-Dichloroethane	5 U
75-34-3	1, 1-Dichloroethane	5 U
156-80-5	Trans-1, 2-Dichloroethane	5 U
67-66-3	Chloroform	5 U
107-06-2	1, 2-Dichloroethane	5 U
75-83-3	2-Butanone	10 U
71-55-6	1, 1, 1-Trichloroethane	5 U
56-23-5	Carbon Tetrachloride	5 U
105-06-4	Vinyl Acetate	10 U
75-27-4	Bromodichloromethane	5 U

CAS Number		ug/l or ug/Kg (Circle One)
75-87-5	1, 2-Dichloropropene	5 U
10061-02-6	Trans-1, 3-Dichloropropene	5 U
75-01-6	Trichloroethane	5 U
124-48-1	Dibromochloromethane	5 U
75-00-5	1, 1, 2-Trichloroethane	5 U
71-43-2	Benzene	5 U
10061-01-5	cis-1, 3-Dichloropropene	5 U
110-75-8	2-Chloroethylvinylether	10 U
75-25-2	Bromoform	5 U
108-10-1	4-Methyl-2-Pentanone	10 U
591-78-6	2-Hexanone	10 U
127-18-4	Tetrachloroethane	5 U
75-34-5	1, 1, 2, 2-Tetrachloroethane	5 U
108-88-3	Toluene	285 5 U
108-80-7	Chlorobenzene	5 U
100-41-4	Ethylbenzene	5 U
100-42-5	Styrene	5 U
	Total Xylenes	145 5 U

NO
TC

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used.
 Additional flags or footnotes explaining results are encouraged. However, the
 definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U to g, 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10U). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/l in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name HAZLETON LABORATORIES
Case No: 5558

Sample Number
EG 538

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

RECEIVED APR 29 1986

Concentration: (Low) Medium (Circle One)

GPC Cleanup ☐ Yes ☒ No

Date Extracted / Prepared: 2-6-86

Separatory Funnel Extraction ☒ Yes

Date Analyzed: 2-6-86

Continuous Liquid - Liquid Extraction ☐ Yes

Conc./Dil Factor: 1 FRN 27075

Percent Moisture (Decanted) 1814

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	20 U
111-44-4	bis-2-Chloroethyl Ether	20 U
95-57-8	2-Chlorophenol	20 U
941-73-1	1,3-Dichlorobenzene	20 U
106-46-7	1,4-Dichlorobenzene	20 U
100-81-8	Benzyl Alcohol	20 U
95-50-1	1,2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
38438-32-8	bis(2-chloroisopropyl) Ether	20 U
106-44-8	4-Methylphenol	20 U
621-84-7	N-Nitroso-Di-n-Propylamine	20 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-58-1	Isophorone	20 U
88-75-5	2-Nitrophenol	20 U
106-67-8	2,4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	100 U
111-91-1	bis-2-Chloroethoxy Methane	20 U
120-83-2	2,4-Dichlorophenol	20 U
120-82-1	1,2,4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	20 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-Methylphenol	20 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	20 U
88-08-2	2,4,6-Trichlorophenol	20 U
95-95-4	2,4,5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethyl Phthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	100 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-8	Acenaphthene	20 U
81-28-5	2,4-Dinitrophenol	100 U
100-02-7	4-Nitrophenol	100 U
132-84-8	Dibenzofuran	20 U
121-14-2	2,4-Dinitrotoluene	20 U
208-20-2	2,6-Dinitrotoluene	20 U
84-86-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	100 U
834-82-1	4,6-Dinitro-2-Methylphenol	100 U
96-30-8	N-Nitrosodiphenylamine (1)	20 U
101-85-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	100 U
95-01-8	Phenanthrene	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
208-44-0	Fluoranthene	20 U
129-00-0	Pyrene	20 U
85-68-7	Butylbenzylphthalate	20 U
91-84-1	3,3'-Dichlorobenzidine	20 U
86-85-3	Benz[a]Anthracene	20 U
117-81-7	bis(2-Ethylhexyl)Phthalate	20 U
218-01-8	Chrysene	20 U
117-84-0	Di-n-Octyl Phthalate	20 U
205-99-2	Benz[b]Fluoranthene	20 U
207-08-8	Benz[k]Fluoranthene	20 U
50-32-8	Benz[a]Pyrene	20 U
193-39-5	Indeno[1,2,3-cd]Pyrene	20 U
83-70-3	Dibenz[a,h]Anthracene	20 U
191-24-2	Benz[a,h]Perylene	20 U

(1) Cannot be separated from diphenylamine

Laboratory Name HAZLETON LABORATORIES
Case No 5558

Sample Number
EG 538

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)
Date Extracted/Prepared 2-6-86
Date Analyzed 2-12-86
Conc/Dil Factor: 1
Percent Moisture (decanted) —

GPC Cleanup ☐ Yes ☒ No
Separatory Funnel Extraction ☒ Yes
Continuous Liquid-Liquid Extraction ☐ Yes

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CAS Number		<u>ug/l or ug/Kg</u> (Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
959-98-8	Endosulfen I	0.05 U
80-57-1	Dieldrin	0.10 U
72-85-9	4,4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-85-9	Endosulfen II	0.10 U
72-54-8	4,4'-DDD	0.10 U
1031-07-8	Endosulfen Sulfate	0.10 U
50-29-3	4,4'-DDT	0.10 U
72-43-5	Methoxychlor	0.50 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.50 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.50 U
11104-28-2	Aroclor-1221	0.50 U
11141-16-5	Aroclor-1232	0.50 U
83489-21-9	Aroclor-1242	0.50 U
12672-29-8	Aroclor-1248	0.50 U
11097-69-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000ml or W_s — V_i 10,000 ul V_t 40 ul

Company Name HAZLETON LABORATORIES
No. 5558

Sample Number
EG538

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds RECEIVED APR 29 1986

[illegible]

* product of the aldol condensation of acetone

SAMPLE DESCRIPTION

SITE NAME/TDD# Chemical Recovery Systems/Black River samples/RS-8512-06
CASE NUMBER 5558

SAMPLE #/STATION LOCATION SW-3/ upstream sample just beyond fence
off Harshaw Chemical property

SAMPLING DATE 2-5-86 SAMPLING TIME 1645

ORGANIC TRAFFIC NUMBER EG 538

INORGANIC TRAFFIC NUMBER MEG 197

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz. jug	organics - P.P.	5-45316, 5-45315	15312052 ✓
40ml. vial	VOA	5-45318, 5-45317	25261302
Liter	metals	5-45319	35317452

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: _____

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: _____

INSTRUMENT READINGS _____

pH 6.5

CONDUCTIVITY 375 μ mhos

TEMPERATURE 3°C.

SAMPLE DESCRIPTION

SITE NAME/TDD# Chemical Recovery Systems/Black River samples/RS-8512-06
CASE NUMBER 5558

SAMPLE #/STATION LOCATION Duplicate for SW-2 Midstream sample
from bank at center of river front (near outfall)

SAMPLING DATE 2-5-86 SAMPLING TIME ~~1530~~ 1620

ORGANIC TRAFFIC NUMBER EG536

INORGANIC TRAFFIC NUMBER MEG195

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz. jug	organics - P.P.	5-45346, 5-45345	15312052 ✓
40 ml. vial	VOA	5-45348, 5-45347	25261302
Liter	metals	5-45350	35317452

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: _____

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: _____

INSTRUMENT READINGS _____

pH 6.4

CONDUCTIVITY ~400 μ mhos

TEMPERATURE 3°C.

SAMPLE DESCRIPTION

SITE NAME/TDD# Chemical Recovery Systems/Black River samples/RS-8512-06
CASE NUMBER 5558

SAMPLE #/STATION LOCATION SW-2 / Midstream sample near outfall

SAMPLING DATE 2-5-86 SAMPLING TIME 1420

ORGANIC TRAFFIC NUMBER EE 993

INORGANIC TRAFFIC NUMBER MEG 198

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz. jug	organics - P.P.	5-45341, 5-45340	15312052 ✓
40 ml. vial	VOA	5-45343, 5-45342	25261302
Liter	metals	5-45344	35317452

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: _____

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: _____

INSTRUMENT READINGS _____

pH 6.4

CONDUCTIVITY ~ 400 μ mhos

TEMPERATURE 3°C.

SAMPLE DESCRIPTION

SITE NAME/TDD# Chemical Recovery Systems/Black River samples/RS-8512-06
CASE NUMBER 5558

SAMPLE #/STATION LOCATION Matrix Spike Duplicate for SW-1/Downstream
sample from at edge of property off river bank
SAMPLING DATE 2-5-86 SAMPLING TIME 1530

ORGANIC TRAFFIC NUMBER EE994
INORGANIC TRAFFIC NUMBER ME - N/A

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz. jug	organics - P.P.	5-45330, 5-45329	15312032
40 ml. vial	VOA	5-45333, 5-45332	25261302

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: _____

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: _____

INSTRUMENT READINGS _____
pH 6.5-6.7
CONDUCTIVITY 230 FPM or 340 umho
TEMPERATURE 3°C.

SAMPLE DESCRIPTION

SITE NAME/TDD# Chemical Recovery Systems/Black River samples/RS-8512-06
CASE NUMBER 5558

SAMPLE #/STATION LOCATION SW-1/Downstream sample at edge of
property off riverbank

SAMPLING DATE 2-5-86 SAMPLING TIME 1530

ORGANIC TRAFFIC NUMBER EG 534

INORGANIC TRAFFIC NUMBER ME E 311

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz. jug	organics - P.P.	5-45324, 5-45325	15312032
40 ml. vial	VOA	5-45326, 5-45327	25261302
Liter	metals	5-45328	35317452

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: _____

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: _____

INSTRUMENT READINGS

pH 6.5-6.7

CONDUCTIVITY 230 ppm or 340 μ mhos

TEMPERATURE 30°C.

SAMPLE DESCRIPTION

SITE NAME/TDD# Chemical Recovery Systems/Black River samples/RS-8512-06
CASE NUMBER 5558

SAMPLE #/STATION LOCATION BL/BLANK

SAMPLING DATE 2-5-86 SAMPLING TIME 1530

ORGANIC TRAFFIC NUMBER EG 537

INORGANIC TRAFFIC NUMBER MEG 196

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz. jug	organics - P.P.	5-45320, 5-45349	15312052 ✓
40ml. vial	VOA	5-45321, 5-45322	25261302
Liter	metals	5-45323	35317452

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: _____

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: _____

INSTRUMENT READINGS _____

pH 7.5-7.75

CONDUCTIVITY 4 ppm = 10 umhos

TEMPERATURE 12°C.



United States Attorney
Northern District of Ohio

Suite 500
1404 East Ninth Street
Cleveland, Ohio 44114

July 25, 1983

Paul J. Schaeffer
U. S. Department of Justice
Land and Natural Resources Division
Hazardous Waste Section, Rm 1515, MAIN
Washington, D. C. 20530

Re: U. S. v. Chemical Recovery Systems, Inc.,
et al.
Civil Action No. C80-1858
Judge Dowd


Dear Mr. Schaeffer:

In reference to the above-captioned case, enclosed please
find a copy of an Order issued by Judge Dowd.

Sincerely yours,

J. WILLIAM PETRO,
UNITED STATES ATTORNEY

By


Kathleen Ann Sutula
Assistant U. S. Attorney
(FIS) 942-4394

KAS/fv

Enclosure

cc: Jonathan McPhee
Deborah Witte

DOWD, J.

RECEIVED

JUL 25 10 42 AM '83

UNITED STATES DISTRICT COURT
CLEVELAND, OHIO
NORTHERN DISTRICT OF OHIO

FILED

1:33 JUL 22 AM 9:18

CLERK U.S. DISTRICT COURT
NORTHERN DISTRICT OF OHIO
AKRON

EASTERN DIVISION

United States of America,)

Plaintiff,)

vs.)

Chemical Recovery Systems,)
Inc., et al.,)

Defendants, and Third)
Party Plaintiffs,)

vs.)

Russell W. Obitts, et al.,)

Third Party Defendants.)

CASE NO. C80-1858

ORDER

A status call was held on this matter on July 12, 1983. Counsel for the United States Government and counsel for the defendant Chemical Recovery Systems advised the Court that a proposed consent decree has been submitted by the government to counsel for Chemical Recovery Systems and its approval for presentation to the Court should be made within several weeks.

Accordingly, IT IS HEREBY ORDERED, ADJUDGED, and DECREED that counsel for the plaintiff, the United States Government and the defendant, Chemical Recovery Systems, Inc., are directed to file the proposed consent decree with

the Court by August 12, 1983 or show cause why there has been a failure to do so. Counsel for the third party plaintiff, Chemical Recovery Systems, Inc., and counsel for the third party defendants, Russell W. Obitts and Dorothy Obitts, are directed to appear for an additional status call with respect to the third party action at 8:30 a.m. on October 6, 1983.



David D. Dowd, Jr.
U. S. District Judge

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF OHIO
EASTERN DIVISION

UNITED STATES OF AMERICA,)	NO. C80-1858
)	
Plaintiff,)	
)	
v.)	
)	
CHEMICAL RECOVERY SYSTEMS, INC.,)	
)	
Defendant.)	<u>CONSENT DECREE</u>

The above-captioned Complaint having been filed pursuant to 33 U.S.C. §1251 et seq. and 42 U.S.C. §6901 et seq. on October 7, 1980, and the parties, the UNITED STATES OF AMERICA, for the Administrator of the United States Environmental Protection Agency (hereinafter "U.S. EPA") and CHEMICAL RECOVERY SYSTEMS, INC., an Ohio corporation, (hereinafter "CRS") by their respective attorneys having consented to the entry of this Consent Decree:

NOW, THEREFORE, before taking any testimony, upon the pleadings, and without admission or adjudication of any issue of fact or law herein, and upon consent of the parties hereto, it is hereby ORDERED, ADJUDGED, AND DECREED as follows:

I. JURISDICTION

This Court has jurisdiction over the parties and subject matter of this action.

II. APPLICATION OF DECREE

This Decree shall apply to and be binding upon the United States and CRS (the Parties), and the successors and assigns of each, as well as any agencies, instrumentalities, officers, directors, agents and servants thereof acting in their respective official capacities. CRS shall provide a copy of this Decree to each contractor it retains to perform work contemplated in this Decree and shall condition any contract for such work on compliance with this Decree and applicable provisions of the approved plans as contemplated in this Decree. A copy of this Decree shall be lodged with the Recorder of Deeds for Lorain County, Ohio, to provide notice of the history of this Site to prospective purchasers of the CRS site located on 146 Locust Street, Elyria, Ohio (hereinafter "site").

III. OBJECTIVES

The objectives of the parties to this Decree are the abatement of any hazardous conditions at the CRS Site which may have existed both before and after CRS took title to the premises, and the abatement of discharges of contaminants, if any, into groundwater and the Black River from the CRS site.

IV. REPRESENTATIONS

CRS represents that it has, as of the entry of this Decree:

- A. Removed all tanks, drums and other spent solvent containers from the Site;
- B. Ceased the receipt, processing and storage of spent solvents on Site;

- C. Removed all temporary structures, the Brighton Still and the building which housed it as well as the Rodney Hunt Still, all storage tanks and all buildings except the upper warehouse;
- D. Secured the CRS Site by completing the existing fence so as to enclose the facility on all sides except the riverbank in order to prevent access by unauthorized persons;
- E. Filled in the sump under the Brighton Still building and sealed the sump under the Rodney Hunt Still building with concrete;
- F. Conducted soil testing and groundwater studies;
- G. Leveled dikes and rough graded selected areas.

V. REMEDIAL MEASURES

- A. On or before August 15, 1983, CRS shall:
 - 1. Jointly conduct a visual inspection of the site with U.S. EPA technical personnel, to identify spots of visibly contaminated soil if any. CRS shall give 10 working days notice of the date of this inspection to U.S. EPA. U.S. EPA may take samples of such soil for analysis.
 - 2. Excavate all visibly contaminated soil identified by the above inspection;
 - 3. Excavate the perimeter of the Brighton Still building in the northwest corner of the Site, to a depth of one foot, and to a distance of two feet beyond the perimeter of the foundation;
 - 4. Dispose of all soil removed in these excavations in an U.S. EPA approved waste disposal site;

5. Backfill the excavated areas with clean clay-containing fill, as necessary, and grade to conform with existing terrain;
 6. Gently grade the Site towards the river bank to a slope of approximately three percent (3%).
- B. At the next horticulturally appropriate time, CRS will seed the Site with appropriate grasses.
- C. CRS will conduct monitoring of the Black River adjacent to the Site a total of at least four times following entry of this Decree, for the following chemicals, PCBs and volatile organics listed in 40 C.F.R. §116.4, pursuant to §311(b) to (A) of the Clean Water Act, on the following basis:
1. Each monitoring shall consist of at least three samples, one of which is to be taken at the outfall from the sewer at CRS, and one downstream from the said outfall. The location of the third sample shall be determined by CRS. Both river samples shall be depth-integrated composites.
 2. All sampling and analysis shall be conducted according to U.S. EPA protocols, copies of which shall be provided upon request, and at a qualified laboratory, identified in advance to U.S. EPA.
 3. Sampling shall take place once each spring, during the first period of intensive melting of snow, or within 48 hours of the first rainfall of one inch or more after March 1, whichever occurs first; and once each fall,

within 48 hours after the first rainfall of one inch or more following August 15; for two years next following entry of this Decree. At least 8 hours' notice of each said sampling shall be given to the Eastern District Office of U.S. EPA by telephone (216-835-5200).

4. All sample results shall be conveyed to U.S. EPA in writing within ten days of their receipt by CRS.

VI. RESPONSIBILITIES AND LIABILITIES

- A. CRS is ultimately responsible for designing and implementing all remedial measures. No advice, guidance, suggestions or comments by U.S. EPA on plans and reports submitted by CRS shall be construed to relieve CRS of this responsibility or transfer any of CRS' liability or obligation in this action to EPA.
- B. Upon completion of the activities required in paragraph V of this Decree, CRS shall submit a notice to the Director, Waste Management Division, Region V, U.S. EPA, certifying that such measures have been completed in full satisfaction of the requirements of this Decree.
- C. Whenever, under the terms of this Decree, a report or other document is required to be forwarded by one Party to another, it shall be directed to the individuals at the addresses specified below, unless those individuals or their successors give notice in writing to the other Party of another individual designated to receive such communications. Reports or documents shall be provided as to U.S. EPA:

Director, Waste Management Division
United States Environmental Protection Agency
Region V (5HR)
230 South Dearborn Street
Chicago, Illinois 60604

As to CRS:

Chemical Recovery Systems, Inc.
c/o David C. Long
Suite 175
24500 Center Ridge Road
Westlake, Ohio 44145

- D. Until termination of the provisions of this Consent Decree, and thereafter in accordance with applicable law, the U.S. EPA, its contractors and consultants, shall have authority to enter the CRS site at all reasonable times with prior notice to CRS, for the purpose of (1) monitoring the progress of CRS in carrying out remedial measures, and (2) observing sampling procedures required under paragraph V of this Decree. U.S. EPA, its contractors, and consultants shall have the authority to require split samples in any such sampling procedure.
- E. All actions required to be taken by this Decree shall be undertaken in compliance with the requirements of applicable federal laws, including the Occupational Safety and Health Act, 29 U.S.C. 651 et seq., and regulations promulgated thereunder.
- F. All data, information, remedial plans, and other documents produced by CRS in the course of implementing this Consent Decree shall be available to the public, unless identified as confidential by CRS in conformance with 40 C.F.R. Part 2.
- The sampling and monitoring data and hydrological and geological

information shall not be considered confidential. Documents or information identified as confidential will be disclosed only in accordance with the confidentiality regulations of 40 C.F.R. Part 2.

- G. No conveyance of title, easement, or other interest in the site shall be consummated by CRS or subsequent holders of any interest in the property without written notice to U.S. EPA and notice to the prospective conveyee as to the conditions of this Consent Decree. After completion of the requirements of this Consent Decree, the copy of the consent decree lodged with the Lorain County Recorder of Deeds shall constitute adequate notice to prospective conveyees for purposes of this Decree.

VII. EXCUSABLE DELAY

The requirements of this Decree shall be implemented within the time limits contained in this Decree unless such performance is impeded by reasons which constitute excusable delay or unavoidable accident.

"Excusable delay or unavoidable accident" is any delay in the completion, scheduling, or performance of a particular task, which arises from unforeseeable events beyond the control and without fault or negligence of CRS. CRS shall notify U.S. EPA within 24 hours of the occurrence or discovery of any such event, and submit a proposed revised schedule for compliance. U.S. EPA may then agree to excuse or permit delay of such compliance. If U.S. EPA does not so agree, CRS may petition the Court for an excuse or a delay.

VIII. MODIFICATIONS

The Court shall retain jurisdiction of this matter for the purposes of enabling the Parties to this Decree to apply to the Court for any further order that may be needed to construe, carry out, modify, or enforce compliance with the terms and objectives of this Decree until the termination of this Decree in accordance with the provisions of paragraph X.

IX. STIPULATED PENALTIES

Upon demand by U.S. EPA and upon the appropriate Motion and Order of this Court, CRS shall pay to the United States an amount not to exceed one thousand five hundred dollars (\$1,500) per day for each day that it fails to comply with the provisions of this Consent Decree. In exercising its discretion in seeking to have the Court impose a penalty hereunder, U.S. EPA shall take into account the magnitude of the violation, the duration of the violation, and any mitigating factors.

X. TERMINATION

The provisions of this Consent Decree shall terminate upon CRS' receipt of written notice from U.S. EPA that the remedial and monitoring provisions of this Decree have been successfully completed. Such notice shall issue within 60 days of the date that CRS performs the last act required of it by this Decree and so informs U.S. EPA unless the court orders otherwise.

XI. EXCEPTIONS AND RESERVATIONS

This Consent Decree shall in no way affect any third party actions existing as a part of this lawsuit, nor shall this Decree be construed so as to affect the rights or duties of the parties under the Comprehensive Environmental Response, Compensation and Liability Act. 42 U.S.C. §9601, et seq.

XII. ENTRY

The Parties hereby consent to the entry of this Consent Decree.

Dated and entered this _____ day of _____, 1983.

UNITED STATES DISTRICT JUDGE

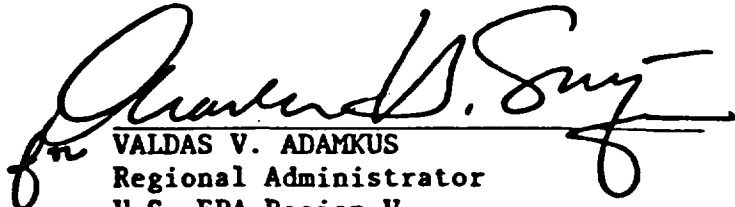
The Parties agree and consent hereto.

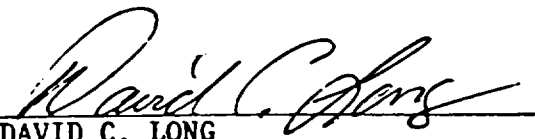
F. HENRY HABICHT, II
Acting Assistant Attorney General
Land and Natural Resources Division
United States Department of Justice
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for VALDAS V. ADAMKUS
Regional Administrator
U.S. EPA Region V
Chicago, Illinois


DAVID C. LONG
Attorney for Chemical
Recovery Systems


CHEMICAL RECOVERY SYSTEMS, INC.
By: Peter J. Shagena
Secretary